

What is Claimed is:

1. An Internet communication system for servicing a plurality of computers housed in a multi-unit building through an Internet Service Provider (ISP), said Internet communication system comprising:

(a) a local area network (LAN) composed of said plurality of computers operatively coupled to a switching hub;

(b) a router operatively coupled between said switching hub and said ISP for connecting said LAN to the Internet; and

(c) means for providing network security for members of said multi-unit building LAN.

2. The Internet communication system of Claim 1, wherein each of said plurality of computers on said multi-unit building LAN includes a LAN interface card with a unique media access control (MAC) address.

3. The Internet communication system of Claim 2, wherein said router is operatively coupled to a router of said ISP by way of a dedicated high-speed two-way data communication link, said dedicated high-speed two-way data communication link transmitting data packets, each of said data packets having an Internet Protocol (IP) header including a destination IP address, a source IP address and a block of binary data.

4. The Internet communication system of Claim 1, wherein said ISP is connected to the Internet by way of a high speed data communication link.

5. The Internet communication system of Claim 1, wherein said network security means includes a plurality of virtual LANs (VLANs) segmented from said multi-unit building LAN by way of said switching hub, each unit of said multi-unit building corresponding to a VLAN, each VLAN comprising at least one computer of said plurality of computers operatively connected to a port on said switching hub, said VLAN segmentation preventing direct communication between different VLANs by way of said switching hub.

6. The Internet communication system of Claim 1, wherein said network security means further includes a firewall on said ISP for preventing unauthorized access to said multi-unit building LAN from outside.

7. The Internet communication system of Claim 2, wherein said network security means further includes a MAC address look-up table on said switching hub for authenticating each computer on said multi-unit building LAN during data communication.

8. The Internet communication system of Claim 3, wherein said network security means further includes an address resolution protocol (ARP) table on said router for storing static IP addresses assigned to said plurality of computers on said multi-unit building LAN and corresponding MAC addresses of said plurality of computers on said multi-unit building LAN

and for authenticating said stored IP and MAC addresses during data communication to prevent unauthorized network use.

9. The Internet communication system of Claim 8, wherein said network security means
5 further includes a computer communication identification (ID) port number allocated to each of said network computers for user authentication purposes, said ID port number automatically recognized by said router during data communication.

10. The Internet communication system of Claim 3, wherein said network security means
10 further includes a data packet filter on said router for restricting the type of inbound transmission data from the Internet and for selective blocking of a range of IP addresses during data transmission from the Internet.